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Successful Treatment of Eruptive Lichen Planus in a Male Adult with Janus Kinase Inhibitor Tofacitinib

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Eruptive lichen planus (LP) is a rare variation of lichen planus that is usually widely distributed and disseminate rapidly. This variation is not well studied, and little is known about the etiologies. Though it is thought to be a result of an autoimmune reaction targeting the basal keratinocytes [1]. Treatments for eruptive LP commonly include oral corticosteroids, retinoids and immunosuppressants. But patients are always reluctant to choose these drugs due to the poor efficacy and more side-effects. Here, we report a case of eruptive LP successfully treated with tofacitinib.

A 36-year-old man presented with 3-month history of generalized asymptomatic purplish papules on the trunk (FIG. 1a, b, c, g) and both extremities (FIG. 1d, e, f, h, I, j). He had no history of fever and denied recent history of infection or intake of any drug prior to the skin eruption. There was also no vaccination before the eruption. A skin biopsy from the forearm demonstrated hyperkeratosis without parakeratosis, focal increases in the granular cell layer, “sawtooth” appearance of irregular acanthosis, a band-like lymphocytic infiltrate and fissure formation at the dermal-epidermal junction (FIG. 2), suggesting the diagnosis of lichen planus.

In combination with the skin lesions, the diagnosis of eruptive LP was made. The patient refused to receive systemic corticosteroids and immunosuppressants including methotrexate and cyclosporin for the drug adverse effects. We thus initiated oral tofacitinib 10 mg per day with the patient’s content and after excluding tuberculosis and hepatitis B and C. The LP lesions were in near-complete remission after 8 weeks (supplemental FIG. 1a-j). The patient maintained the dose at 5 mg without side effects during the 12-week follow-up period.

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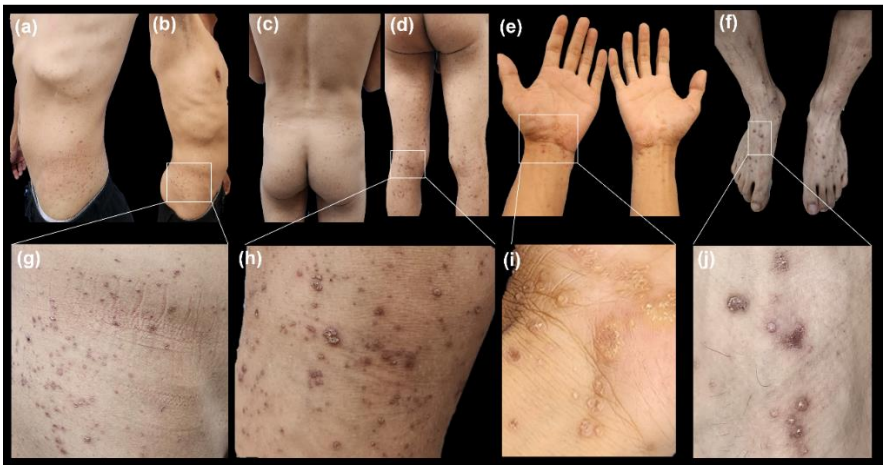


FIG. 1. **Generalized asymptomatic purplish papules on the trunk (a, b, c, g) and both extremities (d, e, f, h, I, j) in a 36-year-old man.**

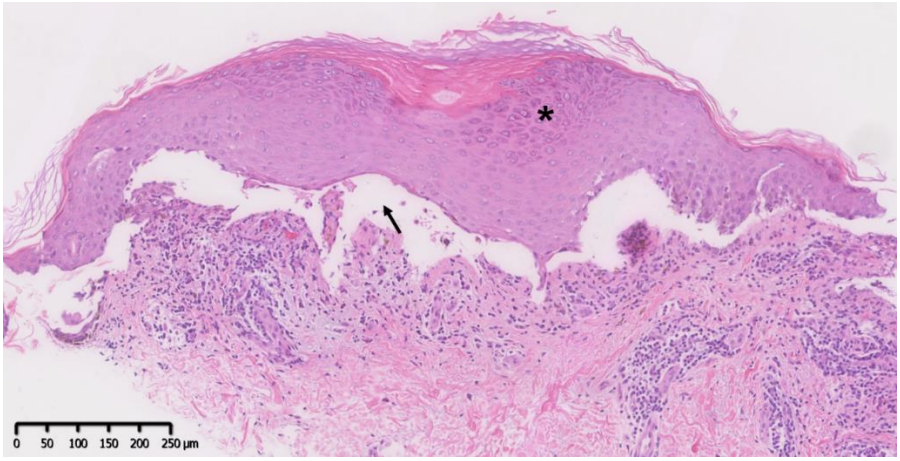
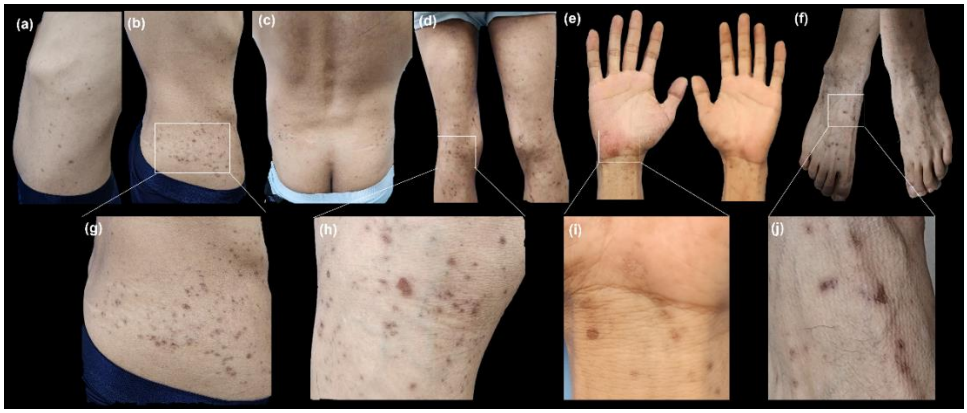


FIG. 2. **Histopathology showed hyperkeratosis without parakeratosis, focal increases in the granular cell layer (asterisk), "sawtooth" appearance of irregular acanthosis, a band-like lymphocytic infiltrate and fissure formation at the dermal-epidermal junction (arrow) (hematoxylin and eosin staining, original magnification × 200).**



Supplemental FIG. 1. **Near-complete remission after 8 weeks (a-j).**

Eruptive LP is an uncommon variant of LP that is commonly reported in children and presented generalized skin lesions [2] Although the pathogenesis is not fully understood yet, current researches regard LP as a result of autoimmune reaction targeting the basal keratinocytes [1,3]. Up to now, there is no definitive therapy for LP because of its wide variety of manifestation and causative factors. Systemic therapies such as oral steroids, retinoids and immunosuppressive agents including azathioprine, cyclosporin, methotrexate, and mycophenolate mofetil have high rates of failure, relapses, and recurrences [4].

Recent studies have indicated that the Janus Kinase-signal transducer and activator of transcription (JAK-STAT) pathway may be the potential target in treating LP [1]. Abduelmula et al. [1] reported that 70% of patients with LP treated with tofacitinib had a complete or partial response. A possible medical target for reducing chronic inflammation in lichen planus is the INF-γ/CXCL10 axis, which is hypothesized to be crucial for its onset and persistence, and which signals through the JAK-STAT pathway [3]. In 2021, Iorizzo M et al. [4] reported a case of nail lichen planus successfully treated with tofacitinib. Consistent with the latest report, which demonstrated the good efficacy and safety of tofacitinib [5], our case also suggested that inhibiting JAK-STAT pathway could potentially yield positive outcomes, even in eruptive LP.

1. Author's Contributions

XQ Zhang: Approval of the final version of the manuscript; W Li: drafting and editing of the manuscript; critical review of the literature; critical review of the manuscript.

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None.

4. Conflict of Interest

The authors declare that they do not have a conflict of interest.

REFERENCES

1. Abduelmula A, Bagit A, Mufti A, et al. The Use of Janus Kinase Inhibitors for Lichen Planus: An Evidence-Based Review. J Cutan Med Surg. 2023;27(3):271-6.
2. Rahman A, Hafeez D. Successful treatment of exanthematous lichen planus in a young adult with low dose oral corticosteroid and isotretinoin. Dermatol Online J. 2022;28(4).
3. Motamed-Sanaye A, Khazaee YF, Shokrgozar M, et al. JAK inhibitors in lichen planus: a review of pathogenesis and treatments. J Dermatolog Treat. 2022;33(8):3098-103.

4. Iorizzo M, Haneke E. Tofacitinib as Treatment for Nail Lichen Planus Associated With Alopecia Universalis. JAMA Dermatol. 2021;157(3):352-3.
5. Youssef S, Bordone LA. Oral tofacitinib effectively treating eruptive and hypertrophic cutaneous lichen planus. JAAD Case Rep. 2023;37:16-20.